

**TESTIMONY OF ANTHONY BARBER,
DIRECTOR, OREGON OPERATIONS OFFICE, AND
ALAN HENNING, FOREST TEAM, WATERSHED UNIT,
ENVIRONMENTAL PROTECTION AGENCY, REGION 10**

BEFORE THE OREGON BOARD OF FORESTRY, APRIL 22, 2015

Good morning, Chair XX and Commission and Board Members. *[Tony]* My name is Anthony Barber. I'm the Director of the US Environmental Protection Agency's Oregon Operations Office and the executive lead for the EPA Region 10 Forest Team. *[Alan]* My name is Alan Henning. I'm one of the Forest Team representatives for the Watershed Unit for the EPA's Region 10 Office in Eugene. *[Tony]* Thank you for the opportunity to share our thoughts with the Commission and Board Members.

Today, I'm going to talk about EPA's role as it relates to water quality and fish in Oregon, our support for the Riparian Rule and why it's important, what we believe the rule should address, and how this relates to the approvability of the Oregon's Coastal Nonpoint Program.

EPA's Role. EPA implements the Clean Water Act in partnership with states and tribes. This includes acting on the state's water quality standards, 303(d) Integrated Report, total maximum daily loads (TMDLs), the state's nonpoint source control programs and overseeing NPDES permits issued by the state. We work closely with the Oregon Department of Environmental Quality (DEQ) and other state agencies on these efforts. EPA is also responsible for overall implementation of the Safe Drinking Water Act in partnership with the Oregon Health Authority and DEQ.

EPA gives technical and financial support to states and tribes to help them implement programs that protect and restore surface and drinking water. Where states and tribes fail to carry out Clean Water Act responsibilities, or when directed by the Courts, EPA is required to take the actions needed to meet national water quality goals.

Why the Riparian Rule is Important. There are 12 million acres of non-federal forest land in Oregon. The management of these lands affects drinking water sources, water quality, and aquatic habitat for several species of threatened and endangered fish, including salmon, steelhead and trout. Because forest practices have direct and important effects on water quality and fish habitat, the riparian rule

analysis has significant implications for EPA's work to protect human health and the environment, and we have closely tracked and reviewed this rule development process.

EPA recognizes that Oregon was one of the first states in the country to develop forest practice rules and regulations. We also recognize and appreciate the state's efforts to review rule effectiveness over time. The current riparian rule analysis is the culmination of a process that started in the late 1990s and includes the 1997 Oregon Coastal Salmon Restoration Initiative¹, Oregon's 1999 IMST report², the 2002 Sufficiency Analysis³, and the recent Ripstream studies⁴. Collectively, these efforts have found that existing forestry practices do not consistently meet water quality standards or fully provide for riparian functions important to water quality and fish. With stream temperature directly affecting fish health and behavior, a revised riparian rule with wider, fully stocked, buffers on all small and medium fish-bearing streams will help to ensure the cold stream temperatures critical to fish health. The revised riparian rules will also improve drinking water and surface water quality by reducing runoff from other pollutants such as fine sediment, toxics, and nutrients.

What the Rule Should Address. Because of the direct effects forestry has on Oregon waters, the scope of the proposed rule will be important. EPA supports a Rule that includes all small and medium fish-bearing streams to protect existing cold water, regardless of their status under section 303 of the Clean Water Act. However, it is important to point out that over 19,000 river miles of Oregon streams have been or are currently impaired for temperature and other pollutants, which impacts fish and other organisms that rely on cold water to live and grow. These listed river miles, along with findings from the Ripstream Study presented in Pre-Meeting material to this Board, have demonstrated an urgent need to develop a revised rule for all small and medium fish-bearing streams.

It has been proposed in Pre-Meeting material to this Board that the spatial scope of these necessary revisions to the riparian rule be applied to only Salmon, Steelhead and Bull Trout (SSBT) streams. Alternatively, it was also proposed that the scope could have a maximum extent of fish bearing streams (also called Type-F streams). For streams in Western Oregon, limiting the application of the new rules to

¹ http://www.oregon.gov/OPSW/docs/ocsri_mar1997ex.pdf

² Independent Multidisciplinary Science Team. 1999. Recovery of Wild Salmonids in Western Oregon Forests: Oregon Forest Practices Act Rules and the Measures in the Oregon Plan for Salmon and Watersheds. Technical Report 1999-1 to the Oregon Plan for Salmon and Watersheds, Governor's Natural Resources Office, Salem, Oregon.
<http://www.fsl.orst.edu/imst/reports/1999-1.pdf>

³ The Oregon Department of Forestry and Department of Environmental Quality. 2002. Sufficiency Analysis: A Statewide Evaluation of FPA Effectiveness in Protecting Water Quality. Available at:
http://www.odf.state.or.us/DIVISIONS/protection/forest_practices

⁴ Groom, J.D., L. Dent, and L.J. Madsen. 2011. Response of western Oregon stream temperatures to contemporary forest management. *Forest Ecology and Management*, doi:10.1016/j.foreco.2011.07.012

only Salmon, Steelhead and Bull Trout (SSBT) streams would not provide adequate protection for 74%, or over 25,000 miles, of Type-F and perennial non-fish bearing streams (**Figure 1**).

In addition, to providing greater buffer protections for all small and medium Type-F streams, EPA also believes greater protections must be provided for many non-fish bearing streams, especially perennial non-fish bearing streams. Non-fish bearing streams (also called Type-N streams) are often head water streams that provide critical cold water and large wood for meeting water quality standards, supporting beneficial uses and enhancing downstream fish habitat. Where Type-N streams are not protected by adequate buffers and are impacted by increased temperature loading, that pollutant load can be delivered to the downstream Type-F streams, which can result in water temperatures rising above the temperature criteria.

EPA's 2003 Temperature Guidance⁵, which was developed through an interdisciplinary team of water quality specialists, fish biologists, hydrologists, and other scientists from multiple agencies and organizations in the Northwest, concluded that the most important factors for restoring salmon runs are providing cold water in streams and a return to a natural watershed thermal regime. EPA believes that providing greater buffer protections for all small and medium Type-F streams, along with a significant proportion of Type-N streams, is required to provide cold water and a natural watershed thermal regime for fish and aquatic organisms.

Streams in Eastern Oregon. EPA recognizes that the focus of the State's riparian rule analysis is on streams in Western Oregon and we appreciate both the level of ODF's effort in its work and the need to respect the geographic limits of the Ripstream data. We would take this opportunity, however, to note that 303(d) temperature listings exist throughout the Oregon. Future effort may need to be devoted to examining riparian protections beyond Oregon's west side. (Dan, Christine and Tony, this is essentially a place-holder statement to ensure that our testimony does not get interpreted as only needing to add greater protections to western Oregon streams)

How Does This Relate to the Coastal Nonpoint Program/CZARA? The Riparian Rule also overlaps with EPA and NOAA's recent disapproval action in January 2015 of Oregon's coastal nonpoint program. While EPA and NOAA acknowledged significant progress in Oregon's nonpoint coastal program, we also identified gaps in Oregon's forestry program as a basis for the disapproval. One of these was the

⁵ U.S. Environmental Protection Agency. 2003. *EPA Region 10 Guidance for Pacific Northwest State and Tribal Temperature Water Quality Standards*. EPA 910-B-03-002. Region 10 Office of Water, Seattle, WA. Available at: http://www.epa.gov/region10/pdf/water/final_temperature_guidance_2003.pdf

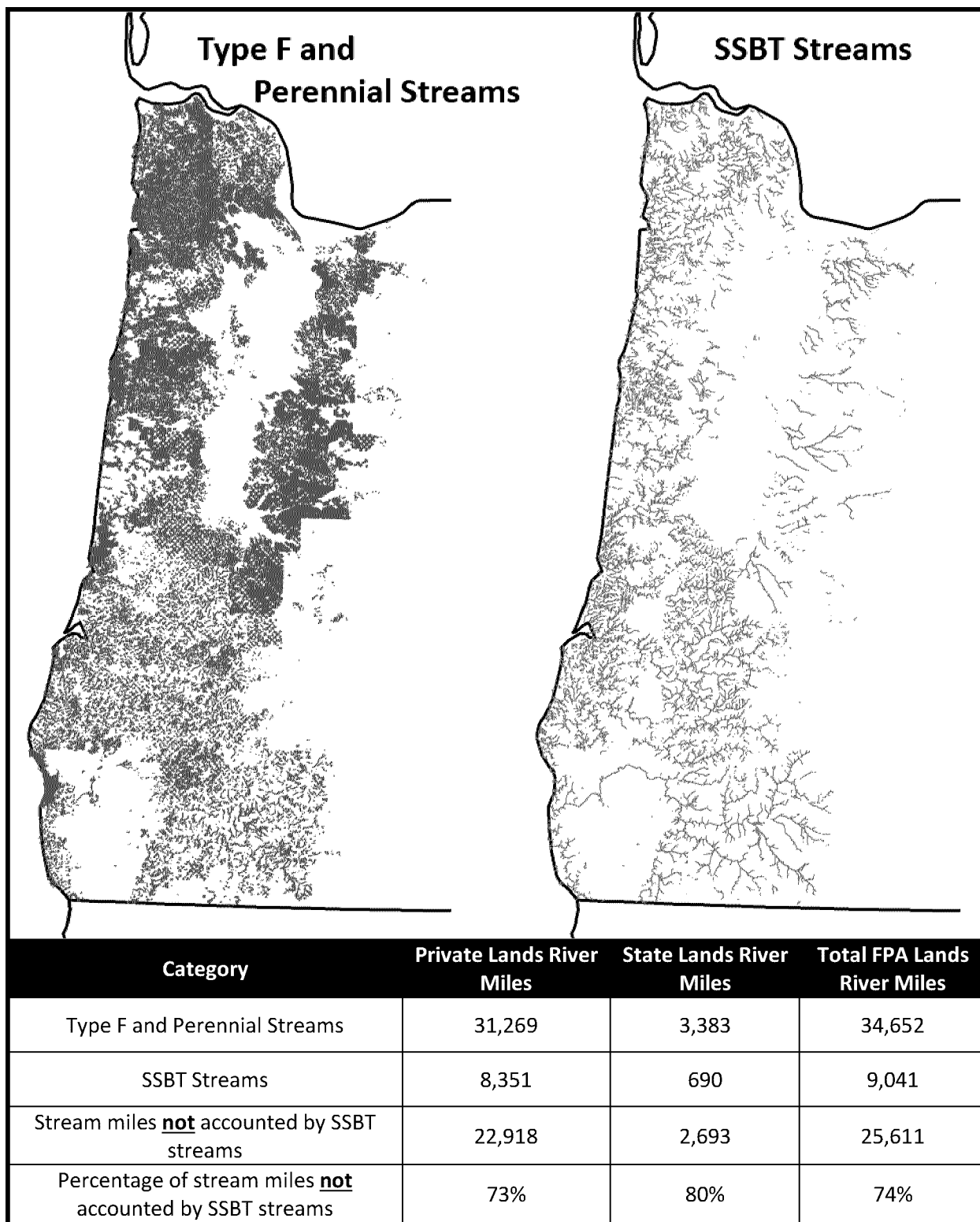
inadequacy of current forest riparian buffers on small and medium fish bearing and non-fish bearing streams. While the current riparian rule revisions is not considering greater protections for non-fish bearing streams, EPA believes that a Riparian Rule with an appropriate buffer width applied to all small and medium fish bearing streams would be significant progress toward moving the State's program to approvability. Although other areas in forestry would need to be addressed for full approval of Oregon's forestry measures, the rule would fill a significant gap identified in EPA and NOAA's evaluation of Oregon's forestry program in our agencies' disapproval action. If the Board of Forestry would like to hear more information on our CZARA findings on forestry at another meeting, we would be very happy to have a dialogue with more detail on the other areas that EPA and NOAA identified.

Closing Words. Riparian management areas are critical to fish and water quality. A broad body of science indicates that it is time to revise Oregon's riparian rules and we applaud the Board of Forestry for embarking upon this task. We encourage you to move forward quickly with amendment of the Forest Practices Act regulations and rule adoption.

I want to thank you again for the opportunity to provide this testimony and would be happy to answer questions you may have at this time. Alan Henning, our Forest Team representative, and I are both available to discuss these issues further with you.

Figure 1. Comparison between Type F and Perennial streams and SSBT (Salmon Steelhead and Bull trout) streams on forested lands managed under the Oregon Forest Practices Act (FPA).

[Type F and Perennial (i.e., Statewide_Sstreams_FP) and SSBT (i.e., SSBTwSize) datasets were obtained from ODF.]



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Today, I'm going to talk about EPA's role as it relates to water quality and fish in Oregon, our support for the Riparian Rule and why it's important, what we believe the rule should address, and how this relates to the approvability of the Oregon's Coastal Nonpoint Program.

EPA's Role. EPA implements the Clean Water Act in partnership with states and tribes. This includes acting on the state's water quality standards, 303(d) Integrated Report, total maximum daily loads (TMDLs), the state's nonpoint source control programs and overseeing NPDES permits issued by the state. We work closely with the Oregon Department of Environmental Quality (DEQ) and other state agencies on these efforts. EPA is also responsible for overall implementation of the Safe Drinking Water Act in partnership with the Oregon Health Authority and DEQ.

Comment [KT1]: 305(b)

EPA gives technical and financial support to states and tribes to help them implement programs that protect and restore surface and drinking water. Where states and tribes fail to carry out Clean Water Act responsibilities, or when directed by the Courts, EPA is required to take the actions needed to meet national water quality goals.

Comment [KT2]: Not sure if it is more appropriate to say Oregon Healthy Authority or Oregon Drinking Water Services (which is under OHA), but DHS is Oregon's social services agency

Why the Riparian Rule is Important. There are 12 million acres of non-federal forest land in Oregon. The management of these lands affects drinking water sources, water quality, and aquatic habitat for several species of threatened and endangered fish, including salmon, steelhead and trout. Because forest practices have direct and important effects on water quality and fish habitat, the riparian rule

analysis has significant implications for EPA’s work to protect human health and the environment, and we have closely tracked and reviewed this rule development process.

EPA recognizes that Oregon was one of the first states in the country to develop forest practice rules and regulations. We also recognize and appreciate the state’s efforts to review rule effectiveness over time. The current riparian rule analysis is the culmination of a process that started in the late 1990s and includes the 1997 Oregon Coastal Salmon Restoration Initiative¹, Oregon’s 1999 IMST report², the 2002 Sufficiency Analysis³, and the recent Ripstream studies⁴. Collectively, these efforts have found that existing forestry practices do not consistently meet water quality standards or fully provide for riparian functions important to water quality and fish. With stream temperature directly affecting fish health and behavior, a revised riparian rule with wider, fully stocked, larger buffers on all small and medium fish-bearing streams will help to ensure the cold stream temperatures critical to fish health. The revised riparian rules will also improve drinking water and surface water quality by reducing runoff from other pollutants such as fine sediment, toxics, and nutrients.

Comment [LP3]: We need to add something about more than just the width, but also the amount of trees left within the buffer. That is why I suggest “fully stocked” b/c it directly implies that you need to leave more than one tree per acre – maybe talk with Teresa about this terminology.

What the Rule Should Address. Because of the direct effects forestry has on Oregon waters, the scope of the proposed rule will be important. EPA supports a Rule that includes all small and medium fish-bearing streams to protect existing cold water, regardless of their status under section 303 of the Clean Water Act. However, it is important to point out that over 19,000 river miles of Oregon streams have been or are currently impaired for temperature and other pollutants, which impacts fish and other organisms that rely on cold water to live and grow. These listed river miles, along with findings from the Ripstream Study presented in Pre-Meeting material to this Board, have demonstrated an urgent need to develop a revised rule for all small and medium fish-beating streams.

Comment [LP4]: I moved some much around and added a bunch of stuff, I did a wholesale replace to this section – I was getting really confused with the track changes – Alan I did exactly what we talked about what to do to this section during our call this morning.

Comment [LP5]: 19,689 miles to be exact (calculated from the 2012 IR from the ODEQ webpage)

It has been proposed in Pre-Meeting material to this Board that the spatial scope of these necessary revisions to the riparian rule be applied to only Salmon, Steelhead and Bull Trout (SSBT) streams. Alternatively, it was also proposed that the scope could have a maximum extent of fish bearing streams (also called Type-F streams). For streams in Western Oregon, limiting the application of the new rules to

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³ The Oregon Department of Forestry and Department of Environmental Quality. 2002. Sufficiency Analysis: A Statewide Evaluation of FPA Effectiveness in Protecting Water Quality. Available at: http://www.odf.state.or.us/DIVISIONS/protection/forest_practices

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only Salmon, Steelhead and Bull Trout (SSBT) streams would not provide adequate protection for 74%, or over 25,000 miles, of Type-F and perennial non-fish bearing streams (Figure 1).

Comment [LP6]: We should say this because of the ODF pre-material present findings that show that current FPA rules result in a 1.5°C temperature increase. This is a fact, that is not protecting biology or

Comment [LP7]: 25,611 miles to be exact.

In addition, to providing greater buffer protections for all small and medium Type-F streams, EPA also believes greater protections must be provided for many non-fish bearing streams, especially perennial non-fish bearing streams. Non-fish bearing streams (also called Type-N streams) are often head water streams that provide critical cold water and large wood for meeting water quality standards, supporting beneficial uses and enhancing downstream fish habitat. Where Type-N streams are not protected by adequate buffers and are impacted by increased temperature loading, that pollutant load can be delivered to the downstream Type-F streams, which can result in water temperatures rising above the temperature criteria.

EPA's 2003 Temperature Guidance⁵, which was developed through an interdisciplinary team of water quality specialists, fish biologists, hydrologists, and other scientists from multiple agencies and organizations in the Northwest, concluded that the most important factors for restoring salmon runs are providing cold water in streams and a return to a natural watershed thermal regime. EPA believes that providing greater buffer protections for all small and medium Type-F streams, along with a significant proportion of Type-N streams, is required to provide cold water and a natural watershed thermal regime for fish and aquatic organisms.

What the Rule Should Address. Because of the direct effects forestry has on Oregon waters, the scope of the proposed rule will be important. EPA supports a Rule that includes all small and medium fish-bearing streams to protect existing cold water and restore cold water in streams that currently exceed temperature standards. EPA also believes greater protections for non-fish bearing streams are warranted especially when non-fish bearing streams contribute pollutant loading to fish bearing streams.

Comment [KT8]: West of the cascade range? Or are we suggesting that the current rulemaking should apply statewide?

XX river miles of Oregon streams have been or are currently impaired for temperature and other pollutants, which impacts fish and other organisms that rely on cold water to live and grow. EPA strongly supports a Riparian Rule that includes all small and medium fish-bearing streams, regardless of their status under section 303 of the Clean Water Act. A Riparian Rule with a scope limited to streams that are listed as unimpaired, or to streams without a TMDL in place would exclude a large universe of

Comment [KT9]: Same comment as above

⁵ U.S. Environmental Protection Agency. 2003. *EPA Region 10 Guidance for Pacific Northwest State and Tribal Temperature Water Quality Standards*. EPA 910-B-03-002. Region 10 Office of Water, Seattle, WA. Available at: http://www.epa.gov/region10/pdf/water/final_temperature_guidance_2003.pdf

streams with high temperatures that need to be restored. It would be counterproductive to implement existing forest practices on streams with temperature impairments when it has been demonstrated that those practices are not adequately protective of cold water.

Comment [KT10]: This may be beyond where we need to go in our testimony. My thought in adding this was to put a finer point on this issue.

A riparian rule with an appropriate buffer width applied on all small and medium fish-bearing streams will be critical to successful protection and restoration efforts for listed fish in Oregon. EPA's 2003 Temperature Guidance⁶, which was developed through an interdisciplinary team of water quality specialists, fish biologists, hydrologists, and other scientists from multiple agencies and organizations in the Northwest, concluded that the most important factors for restoring salmon runs are providing cold water in streams and a return to a natural thermal regime.

Type "N" Streams. There are over 73,000 miles of fish and non-fish bearing streams in Western Oregon of which, only 8,351 miles or approximately 11% are Salmon, Steelhead and Bull Trout streams (SSBT). While EPA supports riparian rule revisions that will provide greater buffer protections for all small and medium fish bearing streams, EPA also believes greater protections must be provided for non-fish bearing streams (Type N streams), especially perennial "N" streams. Type N streams are often head water streams that provide critical cold water and large wood for meeting water quality standards, supporting beneficial uses and enhancing downstream fish habitat. Where Type N streams are not protected by adequate buffers and are impacted by increased temperature loading, that pollutant load can be delivered to the downstream type F streams, i.e. SSBT streams.

Comment [KT11]: Do we have an estimate for the # of miles of perennial type N streams present in Western Oregon? Would be good to be prepared for that question if possible.

Streams in Eastern Oregon. EPA recognizes that the focus of the State's riparian rule analysis is on streams in Western Oregon and we appreciate both the level of ODF's effort in its work and the need to respect the geographic limits of the Ripstream data. We would take this opportunity, however, to note that 303(d) temperature listings exist throughout the Oregon. Future effort may need to be devoted to examining riparian protections beyond Oregon's west side. (Dan, Christine and Tony, this is essentially a place-holder statement to ensure that our testimony does not get interpreted as only needing to add greater protections to western Oregon streams)

How Does This Relate to the Coastal Nonpoint Program/CZARA? The Riparian Rule also overlaps with EPA and NOAA's recent disapproval action in January 2015 of Oregon's coastal nonpoint program. While EPA and NOAA acknowledged significant progress in Oregon's nonpoint coastal program, we also

⁶ U.S. Environmental Protection Agency. 2003. *EPA Region 10 Guidance for Pacific Northwest State and Tribal Temperature Water Quality Standards*. EPA 910-B-03-002. Region 10 Office of Water, Seattle, WA. Available at: http://www.epa.gov/region10/pdf/water/final_temperature_guidance_2003.pdf

identified gaps in Oregon's forestry program as a basis for the disapproval. One of these was the inadequacy of current forest riparian buffers on small and medium fish bearing and non-fish bearing streams. While the current riparian rule revisions is not considering greater protections for non-fish bearing streams, EPA believes that a Riparian Rule with an appropriate buffer width applied to all small and medium fish bearing streams would be significant progress toward moving the State's program to approvability. Although other areas in forestry would need to be addressed for full approval of Oregon's forestry measures, the rule would fill a significant gap identified in EPA and NOAA's evaluation of Oregon's forestry program in our agencies' disapproval action. If the Board of Forestry would like to hear more information on our CZARA findings on forestry at another meeting, we would be very happy to have a dialogue with more detail on the other areas that EPA and NOAA identified.

Comment [KT12]: Same comment as above

Closing Words. Riparian management areas are critical to fish and water quality. A broad body of science indicates that it is time to revise Oregon's riparian rules and we applaud the Board of Forestry for embarking upon this task. We encourage you to move forward quickly with amendment of the Forest Practices Act regulations and rule adoption. ~~Riparian management areas on small and medium fish bearing streams and important coldwater nonfish streams provide protection and restoration of riparian functions important for fish and water quality. We applaud the Board of Forestry for considering amendment of the Forest Practices Act regulations to provide greater protections on Oregon streams and urge you to move forward on rule adoption.~~

I want to thank you again for the opportunity to provide this testimony and would be happy to answer questions you may have at this time. Alan Henning, our Forest Team representative, and I are both available to discuss these issues further with you.

Comment [KT13]: I find this quite a mouthful when I try to read it out loud. Since this is just our closing, I think we could simplify and just say, "Riparian management areas are critical to fish and water quality. A broad body of science indicates that it is time to revise Oregon's riparian rules and we applaud the Board of Forestry for embarking upon this task. We encourage you to move forward quickly with amendment of the Forest Practices Act regulations and rule adoption."

Comment [LP14]: I added Teresa's suggestions – I have big problems also with the original version of this document

Figure 1. Comparison between Type F and Perennial streams and SSBT (Salmon Steelhead and Bull trout) streams on forested lands managed under the Oregon Forest Practices Act (FPA).

[Type F and Perennial (i.e., Statewide_Sstreams_FP) and SSBT (i.e., SSBTwSize) datasets were obtained from ODF.]

